



National Park Service



The Alaska Natural Resource Program - A Strategy for the Future



NPS Photo Kennan Ward



Alaska Region
September 2000

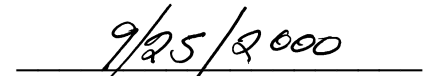
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**The Alaska Natural Resource Program -
A Strategy for the Future**

Natural Resources Advisory Council
National Park Service
Alaska Region
2525 Gambell Street
Anchorage, AK 99503



Robert D. Barbee, Regional Director



Date

The Alaska Natural Resource Program - A Strategy for the Future

Executive Summary

As we enter the next century, the natural resource program for Alaska parks has new and increasing challenges to meet. The parks protect relatively pristine ecosystems, many unique to Alaska, providing NPS managers the opportunity to protect the natural environment and processes. Many consumptive and non-consumptive uses, such as subsistence and visitation, must be balanced. Alaska parks encompass millions of acres, and resource managers must be dedicated to tackle complex and politically sensitive issues with small staff and limited funding. The primary challenge is to provide for appropriate and mandated uses without compromising the health and integrity of the ecosystems protected within the parks.

The Alaska Natural Resource Program - A Strategy for the Future develops four regional priorities broken into eleven focus areas that encompass the range of issues fundamental to Alaska's national parks. These focus areas set the direction and provide a framework for effective natural resource management.

A companion document, *Actions to Implement the Strategy - A Living Document* identifies specific actions for each focus area. These are the steps necessary to fulfill the program's commitment in meeting the challenge of protecting the natural resources of Alaska's parks for generations to come. This document is a five-year strategy prepared by the NPS Alaska Region, Natural Resources Advisory Council.

Four Regional Priorities Encompass Eleven Focus Areas

Preserving Alaska's Ecosystems

- State of the Park Resources
- Backcountry and Wilderness Resources
- Coastal Resources
- Partnerships across Boundaries

Visitation and Access

- Visitor Use
- Transportation and Access

Balancing Preservation and Consumption

- Subsistence and Sport Harvest
- Non-Federal Ownership

A Scientific Foundation for Park Management

- Living Laboratories
- Bringing Information Resources into the 21st Century
- Fostering Professionalism

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INTRODUCTION

The mission of the National Park Service's Alaska Natural Resource Program is to provide leadership and scientifically sound direction for long-term natural resource stewardship. The program will help ensure that natural resources, ecological processes, and values, including ancient and modern human activities, are preserved in keeping with both the National Park Service Organic Act and the Alaska National Interest Lands Conservation Act (ANILCA). The parks of Alaska are of national and international significance. By providing managers with the natural resource knowledge necessary to guide sound policy and decision-making, these unparalleled parks will be preserved unimpaired for future generations.

Alaska national parks are magnificent. They offer both opportunities and challenges for natural resource management. With 54 million acres to manage in Alaska, the National Park Service has a unique opportunity to protect entire ecosystems. No other region has such opportunities. Alaska parks preserve an array of resources, values and uses. The parks span arctic tundra, marine ecosystems, and boreal forests; include designated wilderness and wild and scenic rivers; encompass volcanic and glacial systems; and provide habitat for an array of wildlife and fish. Our responsibility is to protect the natural resources of Alaska parks. In Alaska, park resource managers are challenged with creating a management infrastructure that can effectively span vast park areas; they must be innovative and resourceful, rely on partnerships and central office staff, and leverage funding and support.

When Congress expanded and designated the Alaska national parks with the passage of ANILCA in 1980, our representatives considered the variety of human uses and made provisions to allow for appropriate opportunities to continue. Subsistence and sport harvest of fish and wildlife occur in many areas. Nearly 2,000 patented and unpatented mining claims exist within park boundaries. Reasonable access is permitted to pursue activities like subsistence hunting and mining and to reach private inholdings. State, Native, and private landowners own large areas in the parks and may have different land use objectives. Consequently, lodges, logging, and industrial operations occur within the boundaries of the parks. Natural resource

management gains importance in the face of complex land use patterns.

We are committed to science-based management of the Alaska national parks. We are committed to protecting the outstanding natural resources and associated values in Alaska parks while providing for mandated uses.

The integrity of Alaska national parks is important to the expanding economic growth in the state. Tourist development and gateway communities are increasing. Park visitation has steadily increased in the past two decades. Visitation reached a record of 2.14 million in 1999, a 200 percent increase from 1989 and a 480 percent increase from recorded levels of 1980. Natural resource protection can be as basic as cooperating with neighboring communities to maintain fresh drinking water, preventing bear/human incidents, and providing toilets for visitors. Development exerts pressures on the conditions of ecosystem health, biodiversity and wilderness attributes in the parks. Managers need science-based tools and information to manage ecosystem processes for the long term, while effectively responding to immediate issues.

Science-based management is hampered by the difficulties of conducting ecosystem-scale studies of visitors and effects in the vast and remote Alaska parks. We currently lack basic inventory information that will provide baseline data for future monitoring. Natural resource management needs to be coordinated among parks

and central offices and cooperators to make the best use of small staff and limited funds and to benefit all parks in Alaska. Professional development of resource managers is essential to provide them the education and leadership skills to deal with the challenging tasks ahead.

ANILCA mandates preserving unrivaled scenic and geological values, wildlife populations and habitat, unaltered ecosystems, wilderness values and recreational visitor use, opportunities for scientific research in undisturbed ecosystems, and providing opportunities for subsistence use of resources. Balancing resource use and preservation is paramount to Alaska national parks.

Four Regional Priorities

Eleven Focus Areas

Preserving Alaska's Ecosystems

- *State of the Park Resources*—fully develop and implement an inventory and monitoring program for Alaska parks.
- *Backcountry and Wilderness Resources*—coordinate regionally to create an effective program and comprehensive management plans.
- *Coastal Resources*—develop knowledge sufficient to protect resources and processes through cooperative management strategies.
- *Partnerships Across Boundaries*—participate in ecosystem management opportunities at local and regional levels.

Visitation and Access

- *Visitor Use*—develop methods to establish visitation goals and levels of use that balance visitor use with resource protection.
- *Transportation and Access*—anticipate and plan for appropriate transportation and access methods, levels and infrastructure.

Balancing Preservation and Consumption

- *Subsistence and Sport Harvest*—provide opportunities for traditional and customary uses while maintaining natural and healthy populations.
- *Non-Federal Ownership*—address non-federal ownership consistent with park legislation and sound resource management principles.

A Scientific Foundation for Park Management

- *Living Laboratories*—seek collaborative research opportunities and broadly share scientific results with visitors and educational institutions.
- *Bringing Information Resources into the 21st Century*—develop information management strategy to make new and existing data readily accessible.
- *Fostering Professionalism*—develop and support a professional workforce qualified in resource management and protection.

By setting priorities for natural resource management in Alaska, we will focus our efforts on the most important issues. Equally important is communicating these priorities beyond natural resource staff, not only within the NPS, but also to our neighbors, other agencies, stakeholders, research cooperators, and the public. *The Natural Resource Program - A Strategy for the Future* develops 11 focus areas within four regional priorities that set the direction and provide a framework for effective natural resource management of Alaska's national parks.

This document is a five-year strategy prepared by the NPS Alaska Region Natural Resources Advisory Council and numerous NPS park and central office resource managers and staff. The four regional priorities and 11 focus areas described in the body of the document are a consensus opinion of the most important areas to attend to in the near term. This document is to be updated every five years to address emerging focus areas and lay to rest others. Its purpose is to be an instrument to guide the proactive management of the Alaska Natural Resource Program. It represents a unified agreement about the direction and level of effort in specific program areas, and, as such, will provide consistent guidance and set a course for Alaska parks and central offices.

This document defines each focus area and its goals. Specific actions or steps to achieving the goals of the 11 focus areas are detailed in *Strategic Action Items - A Living Document*, a companion to this *Strategy*. These are measurable and tangible management actions, both park specific and regionwide, that are required to achieve the goals. Appendix B is a living document, to be revised as needed and updated on an annual basis. The intention of the action item list is that it be integrated into park and central office Annual Work Plans under the NPS Performance Management System.

In 1998 the Congress passed the National Parks Omnibus Management Act, calling for "a broad program of the highest quality science and information" to enhance management of the national park system. In August 1999, the NPS Director announced a major new NPS program, *The Natural Resource Challenge: the National Park Service's Action Plan for Preserving Natural Resources (NRC)*. The

NRC seeks to protect resources by relying on scientific knowledge in management decision making. This requires conducting well-defined and properly focused research on the state of the resources, training NPS personnel on how to use this information effectively and communicating this information to visitors and researchers. The NRC includes a series of funded programs to achieve these goals. The *Strategy* has incorporated the NRC goals to the fullest extent possible, and the annual action items will maximize use of NRC funded programs.

The intent of this *Strategy* is to build on the foundations laid in the NRC and the Performance Management System. Under each focus area in this *Strategy*, we have included the corresponding Performance Management System (NPS Mission) goals. Appendix A outlines the relationships between the *Strategy*, the Natural Resource Challenge, and the Performance Management System goals.

Preserving Alaska's Ecosystems

The Natural Resource Program will preserve intact the sensitive and unique ecosystems of Alaska park, and provide a greater understanding of natural processes to protect them from potential impacts.

Alaska national parks encompass physiographic regions and diverse ecosystems unique in the United States, from glaciers and the tallest mountain to flat boreal forests and open tundra. The parks protect some of the most biologically sensitive and productive habitats in wetlands, riparian corridors and coastal zones. Alaska parks are some of the last vestiges of an America teeming with wildlife and scenic wonders. Recognition of this uniqueness is evident from numerous special designations in Alaska parks:

- Wild and Scenic Rivers (10 waterways, including Alagnak and Noatak Rivers);
- Class I Air Quality Area (Denali National Park and Preserve);
- Biosphere Reserve (Glacier Bay National Park and Preserve, and Noatak National Preserve);
- World Heritage Site (Glacier Bay National Park and Preserve, Wrangell-St. Elias National Park and Preserve, and adjacent Canadian parks total 24 million acres, the largest protected area in the world);
- Congressionally designated wilderness (33 million acres in 8 Alaska park units); and
- National Natural Landmarks (six in Alaska parks).

Natural resource program managers have a responsibility to protect these sensitive and unique areas.

Focus Areas



State of the Park Resources



Backcountry & Wilderness Resources



Coastal Resources



Partnerships Across Boundaries

Focus Area: State of the Park Resources

As a foundation for management decisions in Alaska parks, NPS collects baseline information about the current status of its biological and physical resources and how they are changing over time.

National Park Service Mission Goal Ib

The National Park Service contributes to knowledge about natural resources and cultural resources; management decisions about resources and visitors are based on adequate scholarly and scientific information.

Issue Statement

Resources in Alaska national parks are relatively intact when compared with park resources in the remainder of the national park system. Scientists and park resource managers have the unique opportunity to study comparatively undisturbed ecosystems. It is possible that some ecosystems and their resources are already exhibiting changes due to existing natural and human events.

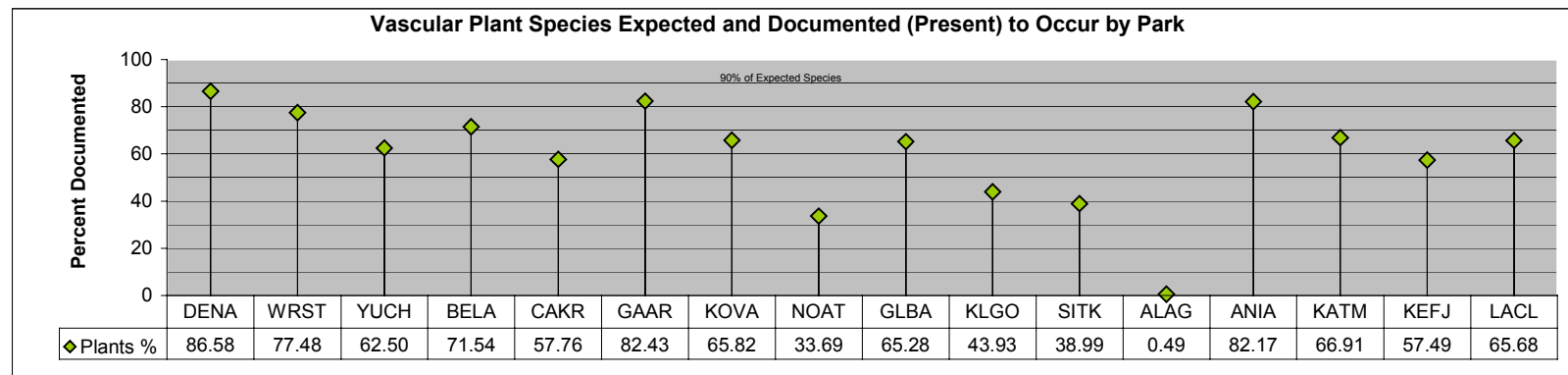
To protect Alaska parks, we must understand their current conditions, both natural and human induced, and how these may change through time. Understanding the current condition of resources is necessary to notice changes in the health of the resources before threats become irreversible. Long term continuity and commitment will ensure the

successful protection of valuable park resources. Baseline ecosystem health and trends information is lacking for most Alaska national parks. Inventory techniques and monitoring protocols established in other states are not always appropriate for very large, remote geographic areas. Taxa groups with the largest baseline information gaps include plants, birds, small mammals and fisheries. These data deficiencies are consistent for all of the ecological networks in Alaska.

Inventory and monitoring programs of the Natural Resources Challenge provide the first steps in assessing status and trends of resources across park units. Biological inventories will document the current presence of various species in the park. Water quality inventories will assess the condition of our streams and rivers. Base cartography efforts will map soils, vegetation, geology, hydrography, and elevation throughout the parks. The monitoring program will compile data on how resources are changing for the long term.



Bear at Brooks Falls, Katmai



Focus Area: Backcountry and Wilderness Areas

A regional backcountry/wilderness management policy serves as the foundation for a unified, consistent planning framework and is used for daily decision making.

National Park Service Mission Goal Ia

Natural and cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.

Issue Statement

Most Alaska national parks are vast and remote backcountry and wilderness areas that offer opportunities for solitude and primitive recreation in largely pristine natural environments. These areas are characterized by high, glaciated mountains, vast river and lake systems, and isolated coastal areas. Visitors must be self-sufficient to traverse these vast areas, travel great distances, and survive severe weather conditions. There are few roads, trails, lodges, or cabins to accommodate visitors; cross-country travel is by foot, raft, snowmobile, and motorboat and, in a few areas, all-terrain vehicles. The remoteness of park backcountry and wilderness areas makes them difficult to reach, but provides them a certain amount of protection and also creates opportunities for scientific research of unaltered ecosystems.

Servicewide about half of the land NPS manages is designated wilderness – more wilderness than any other agency manages. About 80 percent of this wilderness, or 33 million acres, is in Alaska parks. ANILCA made special provisions for certain types of access and uses in Alaska wilderness areas, subject to regulation, that would generally not be permitted in other states. Managers must determine reasonable access by snowmachines, motorboats, and airplanes in designated wilderness areas for traditional activities, subsistence, and to inholdings. Cabins for public health and safety and certain temporary facilities may be maintained or constructed.

Backcountry and wilderness areas can be vulnerable to increases in visitor use,

unlimited overnight stays, more requests for special access, and new development on inholdings. These and other potential impacts to natural processes must be managed in balance with the principles of natural ecosystem functions and wilderness values. Maintaining the high standard of Alaska's backcountry and wilderness areas will require innovative techniques and regional coordination. This is an opportunity to make backcountry/wilderness preservation a cornerstone of resource management in Alaska parks.



Killik River, Gates of the Arctic

Backcountry/Wilderness Planning Challenges

- What is the definition of wilderness character in Alaska, and is it different than that of other states?
- What is the range of desired resource and social conditions that should be provided in backcountry/wilderness areas of Alaska parks? Should every park provide the entire range or should individual parks emphasize different parts of the range?
- What are the variables parks can measure to ensure desired conditions are being maintained?
- What immediate actions should be taken for the long-term protection of the backcountry/wilderness?
- How should parks consider whether an activity is appropriate in designated wilderness ("minimum requirement")?

Focus Area: Coastal Resources

Alaska coastal resources are protected and processes (physical, biological, and successional) proceed unimpaired and are not negatively influenced by visitor use activities, extractive or consumptive activities, park operations or external activities.

National Park Service Mission Goal Ia

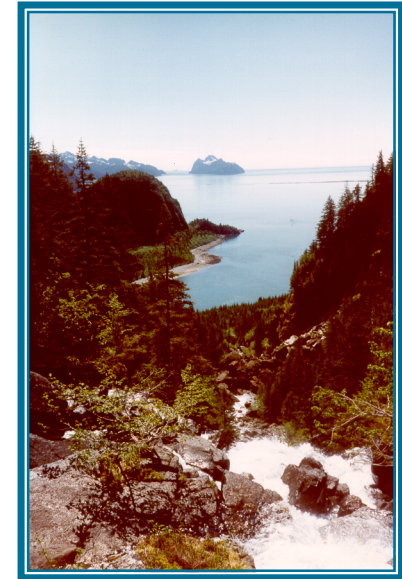
Natural and cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.

Issue Statement

Coastal zones are some of the most productive and biologically sensitive habitats on earth, and Alaska parks have approximately 2,500 miles of coastline, nearly 70 percent of the total servicewide. Rich intertidal zones are important for preserving fishery resources and related recreation and consumptive uses such as sport, subsistence and commercial fishing. Unique coastal resources include wildlife concentration areas like bird rookeries and sea lion haul-outs and physiographic features like wetlands and lagoons that refuge biologically diverse flora and fauna. Receding tidewater glaciers create natural laboratories for scientists to study succession and provide scenic backdrops for boaters and campers.

The shorelines and coastal ecosystems in 10 Alaska national parks contain natural, cultural and wilderness resources unique not only to Alaska – but to the nation. Moreover, they provide visitor opportunities uncommon elsewhere in the national park system. Despite the protection afforded by national park status, these resources are subject to human impacts, such as catastrophic oil spills from cruise ships, tankers, and barges, and increasing vessel traffic related to a growing tourism industry, commercial fishing, and coastal development) as well as natural phenomena (such as geohazards and recent sea surface temperature increases. Both human and natural-induced impacts can affect marine biodiversity, species abundance, and ecosystem structure and function.

Management of coastal areas is complex due to extensive inholdings and related commercial and industrial development such as lodges and port sites. Except for parts of Glacier Bay, national park management of coasts is limited to areas above the mean high tide line. Coastal resources are at risk from potential uses and development adjacent to NPS boundaries, such as commercial fishing, steady tour boat traffic, visitors from boat and fly-in drop-off services, and log transfer facilities. Although clearly a broader responsibility than just a resource management issue in parks, cooperative management strategies with adjacent land managers can begin to address some of these concerns. Coordination among coastal parks and other agencies is necessary to identify these and other strategies to protect coastal resources and processes.



Kenai Fjords Coast

Coastal Resource Questions

- What impacts do coastal visitors have on black oystercatcher nesting success at Kenai Fjords?
- How do cruise ships affect the acoustical quality of marine waters in Glacier Bay?
- How will Red Dog port site expansion affect Cape Krusenstern coastal resources?
- Is the increased visitation displacing bears and otherwise affecting brown bear demographics at Katmai?

Focus Area: Partnerships Across Boundaries

Natural resource management in the NPS reaches across agency and political boundaries to protect the ecological health and integrity of our large ecosystems.

National Park Service Mission Goal IIIa

Natural and cultural resources are conserved through formal partnership programs.

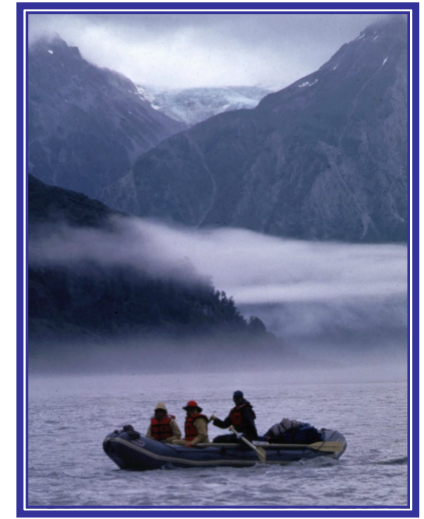
Issue Statement

Transboundary ecosystem management is widely discussed, but is difficult to implement. Lands surrounding park boundaries are managed by private individuals, Native corporations, international governments (Canada), the State of Alaska, and other federal agencies with a wide variety of missions and mandates. A refinement of past resource management practices must be undertaken to ensure consistent, long-term, broad scale preservation of natural resources. Coordinating and partnering with adjacent landowners allows resources to be managed on an ecosystem approach across boundaries. These partnerships would allow NPS to share technologies, expertise, resources and operational support, and vice-versa. They would create new opportunities to manage dynamic ecosystems across large geographic regions.

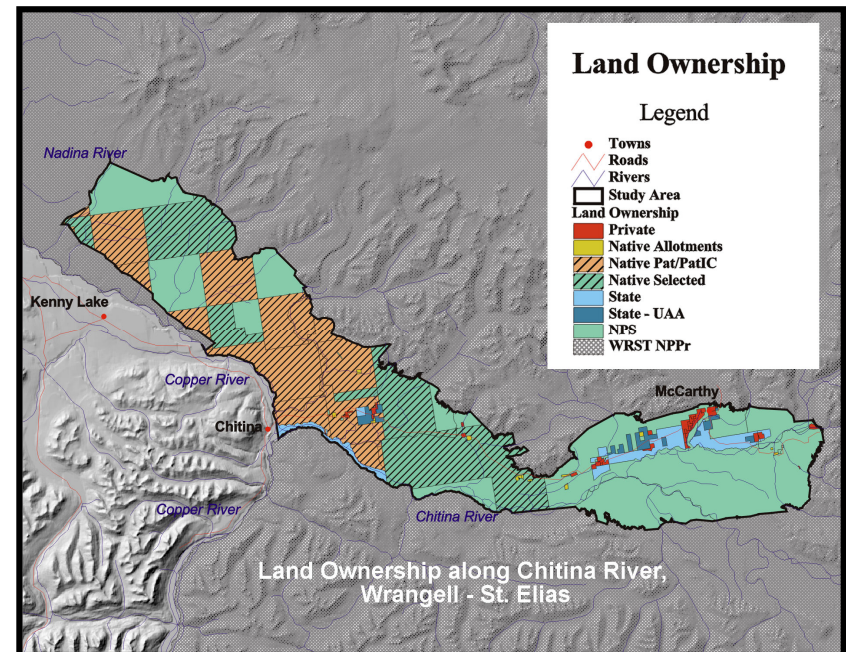
Consumptive and non-consumptive uses in adjacent areas can have a profound effect on the health of park ecosystems. Coordinating harvest regulations with adjacent land managers can help ensure healthy population structures and natural ecosystem dynamics. It is important to manage migratory species as one population even when attempting to meet agency specific mandates.

The National Park Service must manage parklands with an awareness of the environments and activities that border them. We need to replace park-specific 'single species' management with interagency monitoring and research that recognizes the cross-boundary dependence of many resources. The political hurdles that must be crossed in such an effort are large, ranging from conflicting societal

needs to agency mandates and jurisdictions. The stakes, however, are equally high for our natural resources.



Tatshenshini/Alsek, Glacier Bay, Managed jointly with Canada



Visitation and Reasonable Access Experience Your America

The Natural Resource Program will protect the natural resources of Alaska parks while allowing for appropriate traditional and recreational opportunities, and appropriate access.

Visitor enjoyment and resource protection are the twin mandates of the National Park Service. Visitors to Alaska parks can experience solitude and wilderness, and a variety of activities, from kayaking, backpacking, and photography, to cruises, and hunting. How visitors travel to and within parks—their access and transportation methods—is linked to the quality and kind of experience they have. ANILCA has special provisions for access in most Alaska parks. Resource managers are challenged with preserving park resources and values that provide the basis for that exceptional visitor experience, while allowing for reasonable access. By understanding the access provisions of ANILCA, anticipating transportation system needs and protecting the high quality visitor experience and allowed uses (such as subsistence), managers can proactively achieve this complex mandate.

Focus Areas



Visitor Use



Transportation and Access

Focus Area: Visitor Use

Alaska parks are managed to protect natural resources and processes, while providing a diverse range of quality visitor experiences.

National Park Service Mission Goal Ia and IIa

Ia: Natural and cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.

IIa: Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.

Issue Statement

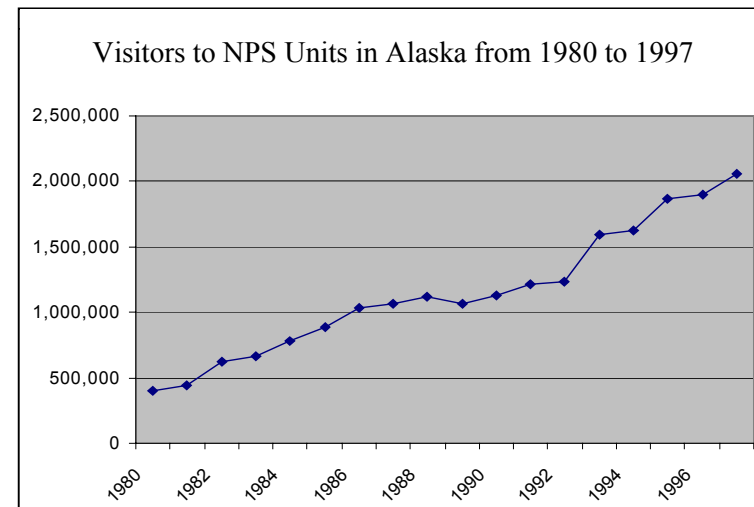
Alaska parks are a once-in-a-lifetime destination for some visitors and a backyard for others. High, glaciated mountains attract hardy climbers and glacial travelers, and vast river and lake systems provide for floatplane access and boating. Coastal areas are isolated, and many are largely inaccessible except to experienced boaters. There are few trails, lodges, or cabins to accommodate visitors; cross-country travel is by foot, snowmobile, and motorboat and in some areas, all-terrain vehicles. Seasonal and year-round residents in nearby villages and scattered inholdings can be daily visitors, and many use park resources for subsistence lifestyles. The number of visitors to Alaska parks has more than doubled in the last decade.

Visitors experience Alaska parks in various ways. For example, ranging from 1,000-passenger cruise ships plying Glacier Bay to independent backpackers exploring the remote wilderness of Gates of the Arctic. Many visit Alaska parks as part of an organized tour, like the Denali bus tour, marketed by the tourism industry. Others use local air charters to reach backcountry lodges, and some travel on their own to spectacular, secluded areas. NPS issues more than 300 individual business permits in Alaska parks for visitor services like air taxis, guided fishing, hunting, river running, and mountain climbing.

Little is known about the biological carrying capacity of areas where visitor use concentrates along shorelines, rivers, roads, lakes and airstrips, and can result in litter, improper sanitation, vegetative trampling, noise, and wildlife disturbance. At popular destinations, like Brooks Camp, Kennecott, and the Kantishna Hills, the parks lack the long-term data and visitor use studies that would help manage visitor use and mitigate potential adverse effects on natural resources. Tracking the levels and kinds of visitor use in Alaska parks is difficult, because most visitors do not access parks through traditional park entrances and many parks do not require permits for backcountry use. Trends in regional tourism and rural growth need to be understood to anticipate potential future visitor use and manage impacts.



Climbers, Wrangell - St. Elias



Focus Area: Transportation and Access

Park units are protected by appropriately managing transportation methods and levels and adequately planning for reasonable future access.

National Park Service Mission Goal Ia

Natural and cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.

Issue Statement

Alaska parks are vast, with few developed transportation systems, roads, or airstrips. Exemplary transportation management plans developed for Denali and Glacier Bay limit effects on resources by managing the number of buses and other vehicles traveling the Denali park road and cruise ships and other boats entering Glacier Bay. Aside from a few other roads, access to Alaska parks is dispersed. The mandate of ANILCA is to permit use of snowmachines, motorboats, airplanes, and nonmotorized surface methods of transportation for traditional activities and for travel to and from villages and homesites. Also, traditionally used methods of surface transportation are permitted for subsistence uses. Regardless of type or purpose, however, each method of access is subject to reasonable regulations to protect resource values.

Transportation and access enable visitors to experience and enjoy the wonders of our national parks, and for uses, such as subsistence. Transportation routes and access methods can significantly affect park resources and values. Roads and trails can alter drainage patterns, displace wildlife, fragment habitat, disrupt wildlife corridors, degrade scenic vistas, and destroy natural vegetation. Similarly, dispersed access can result in wildlife displacement, habitat fragmentation, and vegetative disturbance.

Resource-based planning for access and transportation is lacking for most parks. By developing quantitative information about access

routes and methods, and incorporating this into park plans, decision-makers will be better informed of resource threats that could result from access activities. This information is key to managing access methods and transportation routes and mitigating potential threats to Alaska park resources.



Denali Park Road

ANILCA Access Provisions for some Parks

ANILCA [Sec. 1110(a)] states: "...the Secretary shall permit...the use of snowmachines (during periods of adequate snow cover, or frozen river conditions in the case of wild and scenic rivers), motorboats, airplanes, and nonmotorized surface transportation methods for traditional activities (where such activities are permitted by this Act or other laws) and for travel to and from villages and homesites. Such use shall be subject to reasonable regulations by the Secretary to protect the natural and other values..."

Section 811(a) and 811 (b) of ANILCA states that the Secretary "...shall ensure reasonable access to subsistence resources on public lands..." and "...permit on the public lands appropriate use for subsistence purposes snowmobiles, motorboats, and other means of surface transportation...subject to reasonable regulation."

Balancing Preservation and Consumption

The Natural Resource Program will protect park resources by defining a balance between ensuring healthy resources and consumption.

In most Alaska parks, the NPS fulfills its ANILCA mandate by protecting park resources while providing for the consumptive use of natural resources. Parks are subject to harvest of fish and wildlife resources, extraction of physical resources and development on numerous inholdings. Most Alaska parks support fish and wildlife harvest, for subsistence use and fishing as well as sport hunting on preserves. Guiding, lodges, and air taxi services in parks provide additional opportunities for park visitors to sport hunt and fish. Even though park lands are closed to new mineral entry, ANILCA provides for the continuation of mining on existing claims. Mineral resource removal and associated support activities such as access and transportation can affect wildlife, vegetation, air and water quality, and scenic landscapes. Consumptive uses such as logging, mining, road construction, and resort development on private, Alaska State and Native-held inholdings, provide management challenges. These uses could impact the health and status of park resources and values. To fulfill the NPS mandate in the Alaska setting, managers work collaboratively with a variety of stakeholders to protect park resources.

Examples of Consumptive and Commercial Activities in the 16 Alaska NPS Units

Sport Hunting- occurs in the preserve portion of 10 units.

Sport Fishing- occurs in all 16 units.

Subsistence Resource Use- occurs in all, or portions of, 13 units.

Grazing- reindeer grazing is authorized in 1 unit.

Incidental Business Permits- have been issued for 360 individual operators to conduct commercial activities throughout Alaska parks. Activities include flight seeing, air taxi operations, guided hiking, kayak touring, and winter backcountry use.

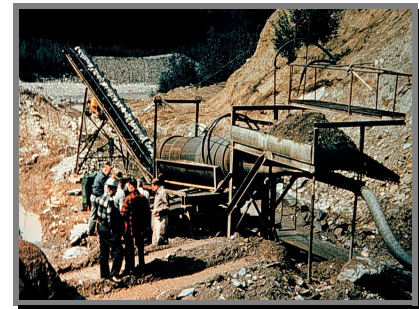
Commercial Contracts- 104 permits have been issued for long-term commercial activities associated with a fixed structure or land assignment inside units. Such activities include hotel operations, tour and shuttle bus operations, hunting guides, charter boat operations, cruise ship operations, river rafting, and mountaineering.

Mining Claims and Operations- Federal patented and unpatented mining claims are in 6 of the 16 units in Alaska. There are a total of 716 mining claims occupying approximately 14,600 acres that are subject to development of mineral resources.

Focus Areas



Subsistence and Sport Harvest



Non-Federal Ownership

Focus Area: Subsistence and Sport Harvest

Provide subsistence and sport harvest opportunities in Alaska parks while conserving populations of fish and wildlife.

National Park Service Mission Goals Ia and Ib

Ia: Natural and cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.

Ib: The National Park Service contributes to knowledge about natural and cultural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.

Issue Statement

Subsistence management is one of the most challenging issues facing the Alaska parks managers. Consumptive uses and management as introduced by ANILCA, which contains many undefined concepts, jurisdictional questions, and important cultural implications for rural residents. Resource management must be coordinated within a complex web of regulatory constraints in a highly charged political atmosphere where cultural and traditional use priorities and natural resource mandates overlap and sometimes conflict.

Sport harvest in preserves is allowed only if healthy fish and wildlife populations are maintained and if the subsistence harvest need has been met. Determining the allowable level of harvest, subsistence opportunities, balancing between sport and subsistence harvests, and working with the State on setting sport harvest levels are major issues facing management.

ANILCA requires managing consumptive uses to conserve fish and wildlife populations. Species management plans are needed to make effective regulatory decisions. The vast size and remoteness of Alaska parks makes the collection of baseline information of harvested species difficult and expensive. Harvest of species that are

migratory
(anadromous
fish, caribou,
bear, and so
on.) allows
taking of a
single

population under differing federal and state rules and management by agencies with diverse objectives. With expansion of the Federal Subsistence Program into fisheries management comes a substantial increase in the scope of responsibility and workload of several parks.

Success will require reliance on interdisciplinary methods, including local knowledge, that span cultural, agency, and geographic boundaries. To maintain natural and healthy fish and wildlife populations, a coordinated approach to managing harvested resources needs to be adopted by all relevant agencies.



Subsistence Harvest, Northwest Arctic

Example Subsistence Activities

- Seven subsistence resource commissions work with the parks to develop hunting plans.
- NPS subsistence managers provide information and recommendations for hunting regulations.
- In October 1999 the federal government assumed responsibility for subsistence fishing in federally managed waters.

Focus Area: Non-Federal Ownership

Non-federal surface and subsurface estates within park boundaries are addressed in a manner consistent with park enabling legislation, other provisions of ANILCA, and park land protection plans so that park resources and values are protected.

National Park Service Mission Goal Ia

Natural and cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.

Issue Statement

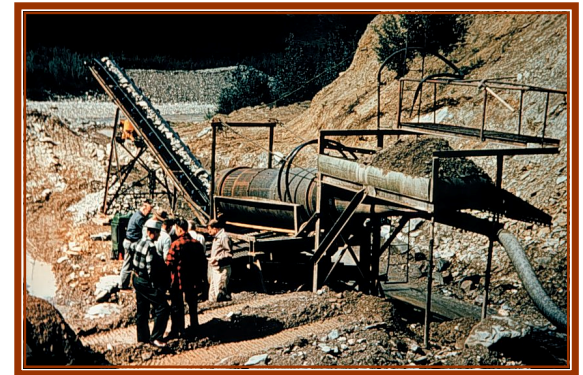
Alaska national parks encompass significant acreage not held in federal fee ownership. Non-federal land within the park boundaries is held by Native regional and village corporations, the State of Alaska, university, and private small parcel owners, including patented federal mining claimants and Native allotments. It totals 3.6 million acres or 6.5 percent of the acreage contained in the park boundaries. This percentage will increase as Native-selected land is conveyed to corporations. Additionally, there are approximately 551 patented and 264 unpatented mining claims in Alaska national parks.

Rights associated with these inholdings can extend to surface and subsurface estates. Development and consumptive uses on inholdings can affect park resources and values, and in some cases the purpose for which the park was established. Examples are mining for precious metals; sand and gravel extraction; developing roads and airstrips to reach timber, mineral, or other resources; harvesting timber; developing commercial resorts; and building private vacation or subsistence cabins.

Opportunities to protect concomitant park resources and values are generally confined to NPS comments on permits and other environmental reviews. A notable exception is the Mining in the Parks Act, which provides for NPS review and approval of mining plans of operation, on both patented and unpatented claims. However, collaborative management initiatives can be pursued with the

landowner to achieve mutual goals while ensuring park resource protection.

Park inholders can be made aware of sensitive park resources and values. By working with inholders to explore options for exercising their privileges, we can better protect sensitive park resources. Park land protection plans allow managers to prioritize acquisition and related issues regarding sizeable inholdings in Alaska parks.



Mining Operations, Denali

Non-Federal Ownership Issues

- Approximately 10,500 acres have been logged within Wrangell-St. Elias boundaries.
- Approximately three-quarters of Lake Clark's shoreline has either been conveyed into private ownership or is under adjudication for conveyance.
- Mining for precious metals and associated road development continues at Denali and Wrangell-St. Elias.

A Scientific Foundation for Park Management

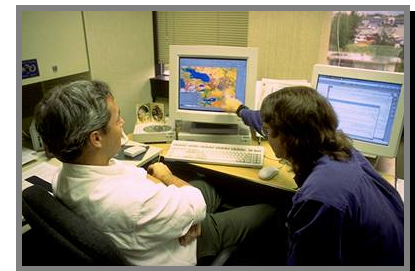
The Natural Resource Program will take a leadership role in implementing science-based management through a professional workforce equipped with state-of-the-art information technology and by highlighting the role of parks as living laboratories for scientific problem solving.

To successfully move the natural resource program into the 21st century will take leadership, technology, science, and public support. We have an opportunity to make a difference to science and management by continuing to professionalize our staff, provide them the tools needed to succeed, and communicate research results to our public. Knowledgeable and well-trained personnel need accurate and readily accessible information to make good decisions. Scientific research is a powerful tool for resolving specific management issues and can garner public support if it is well communicated. Parks can serve as laboratories for research into natural processes largely unaltered by human influence. To sustain resource programs at levels adequate to address pressing resource issues, we must further develop strong internal and external advocates.

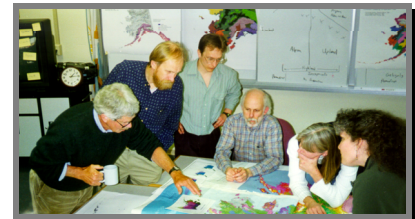
Focus Areas



Living Laboratories



Bringing Information Resources into the 21st Century



Fostering Professionalism

Focus Area: Living Laboratories

Alaska parks provide opportunities for investigators from multiple disciplines to collaborate on ecosystem-level research, pioneer new approaches, and communicate results to diverse clients.

National Park Service Mission Goal 1b

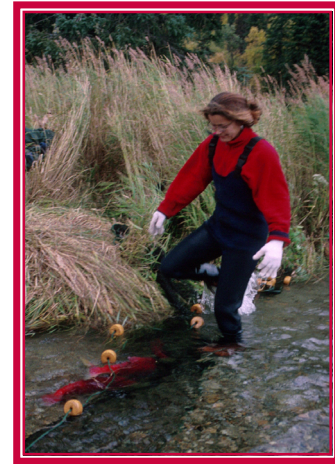
The National Park Service contributes to knowledge about natural and cultural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.

Issue Statement

Alaska national parks are large reservoirs of relatively pristine natural resources where natural processes proceed unimpeded. Parks can serve as “laboratories” or “controls” where researchers can collect baseline data on natural resources, investigate natural processes largely unaltered by human influence, and compare the rate and intensity of human-induced change. Baseline data collected in Alaska national parks will be useful to the management of other conserved lands subject to greater human impacts.

The NPS Natural Resource Challenge (NRC) emphasizes research in parks that provides benefits to managers, the scientific community, and the public, while being scientifically rigorous and ecologically sensitive. The NRC also provides for the creation of a system of learning centers throughout the national park system. Learning centers will support research activities on natural and cultural resources in parks and provide accommodations for science and resource professionals. The centers will directly transmit information and understanding on a wide variety of research and investigative topics to sponsoring parks and the public. The centers will promote education and public outreach through an education specialist who will work directly with park interpreters and other cooperating partners. Funding has already been approved for a learning center in Seward serving the Southwest Alaska Network of parks.

The NPS should encourage researchers at the USGS Biological Resources Division, other federal agencies, State of Alaska universities and colleges, and other research institutions to conduct research in Alaska national parks. Research results will not only improve park management decisions, but will also educate our visitors and public about the unique ecosystems supported in Alaska parks.



Salmon Research, Lake Clark

Focus on Marine Reserves

The marine waters of Glacier Bay National Park serve as a “living laboratory.” Here investigators can test management effectiveness and ecological implications of marine reserves in northern latitudes. Researchers from the National Park Service, the USGS Biological Resource Division, the Alaska Department of Fish and Game, and others are developing a comprehensive, collaborative, long-term research framework. This research will inform management of ongoing commercial fisheries in park waters and elsewhere in Southeast Alaska and will contribute toward our understanding of marine reserves worldwide.

Focus Area: Bringing Information Resources into the 21st Century

The data and results of all natural resource projects are available to park managers and the public in a timely, useful, and organized fashion.

National Park Service Mission Goal 1b

The National Park Service contributes to knowledge about natural and cultural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.

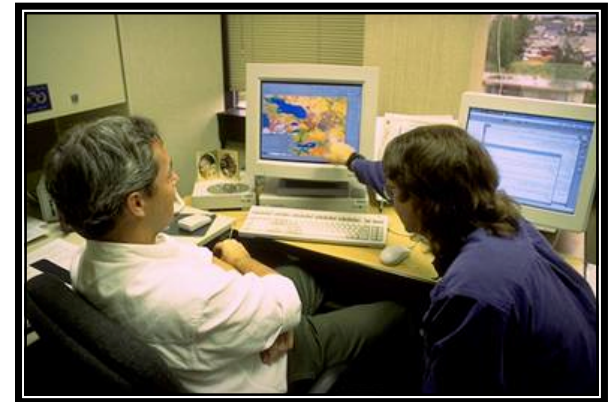
Issue Statement

Effective natural resource management requires factual information about the resources. The resources and key attributes, their present condition, and how are they being affected by activities in and around parks are vital tools for effective resource management. Information needs can range from visitor use to animal population dynamics, and formats can vary from maps and graphs to reports and narratives. This diverse information and formats must be readily available to managers – along with the technical tools to use them.

Existing natural resource information is sometimes scattered in field notebooks, personal files, and unpublished reports. Information for resource management decisions needs to be readily retrievable and available for analysis. Resource managers often do not know what information exists, or how to find what does exist. Raw research data may need to be analyzed and compiled before it can be used. \To determine long-term trends, future research should build on historic information about resource conditions; this is possible only if the data are usable and available.

An information management strategy will address the use of existing information and ensures new information is collected and disseminated in the most effective manner. For science-based management and decision making, resource managers need to have

easy access to the information. This goal can be achieved by developing and maintaining databases and placing new information into an organized system. Existing information will be pulled together and placed into user friendly databases. State-of-the-art computers and Internet access, and staff trained in analysis are just some of the tools needed to make science-based management a reality.



Geographic Information Systems, Anchorage

Using the Intranet for Regional Communication

A screenshot of a Microsoft Internet Explorer browser window. The title bar reads "Challenge Alaska - Microsoft Internet Explorer". The address bar shows "http://aksoweb/nrc/". The main content area features a banner with the text "Natural Resource Challenge" in yellow and green, set against a background of a mountain range. Below the banner, there is a paragraph of text about the Natural Resource Challenge (NRC), followed by contact information for Susan Huse, the Alaska NRC Coordinator. At the bottom, there are links to "Find out more about the Natural Resources Challenge in Alaska and Servicewide," and "the Latest News & Happenings." The status bar at the bottom indicates "Local intranet".

The Natural Resource Challenge (NRC) is a budgeted action plan aimed at restoring the balance of resource preservation with visitation and facilities development - to realign our perspective so that we do not lose sight of our commitment to preserving resources in perpetuity. It is a framework for helping NPS fulfill its commitment and preserve natural resources for years to come.

To get involved in the NRC in Alaska, or for more information, contact the Alaska NRC Coordinator, Susan Huse in the Alaska Support Office [susan_huse@nps.gov or (907)257-2558].

Find out more about the [Natural Resources Challenge](#) in Alaska and Servicewide, the [Latest News & Happenings](#).

Focus Area: Fostering Professionalism

The Alaska Region supports leadership in natural resource professionals through active employee development and valuing scientific information in decision making.

National Park Service Mission Goal IVa:

The National Park Service uses current management practices, systems, and technologies to accomplish its mission.

Issue Statement:

Alaska park resource issues are multifaceted and pressing, biologically, geologically, physically, and politically. Park resource managers must keep pace with the increasing number and complexity of resource challenges, and turn to specialists from Alaska Support Office, Washington Support Office resource divisions, and the US Geological Survey Biological Resources Division to augment their staff. The dilemma for resource management professionals is how to effectively influence decisions when adequate scientific information and expertise are limited. Credibility is important to our success with controversial resource issues. Professionalism will enhance decision making when information is lacking, yet avenues for developing existing staff from technician to leadership level positions through mentoring and employee development programs are not clearly articulated or emphasized.

The Natural Resource Challenge emphasizes taking an informed approach to natural resource management and protection. A professional workforce is fundamental to NPS achieving its responsibilities as a professional resource and land manager and successfully protecting the nationally and globally significant resources of Alaska national parks. Fostering professionalism means developing employees and utilizing their knowledge and scientific information in decisions that affect park resources. Professionals need to remain current in areas of expertise and must have opportunities to develop their skills, abilities and knowledge in science, policy, planning, and leadership. Opportunities and pathways for professional growth need to be encouraged. Recruitment should focus on attracting

diverse candidates with strong scientific and resource management backgrounds, including educational credentials.



Ecosystem Workshop, Anchorage

By enhancing the workforce composition, we will begin to shift the agency culture to one that is equipped with the natural resource expertise to effectively manage and protect Alaska national park resources. Protection will also be achieved by providing for resource professionals to be directly involved in management decisions. The essence of a park is its resources. The National Park Service, therefore, must have highly qualified and motivated staff to know, understand, maintain, and protect those resources unimpaired for the enjoyment of future generations.

Resource Careers Program

Resource Careers is a program to enhance the professional natural and cultural resource management workforce in the National Park Service. Benchmark position descriptions and a standardized career ladder encourage an appropriate high level of professionalism and expertise across park programs and occupational fields.